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BEFORE THE SURFACE TRANSPORTATION BOARD WASHINGTON, DC 20423

STB Finance Docket No. 30186 (Sub.-No.3) <sup>1</sup>

RFCFIVED JUL 25 2011

TONGUE RIVER RAILROAD COMPANY, INC. CONSTRUCTION AND OPERATION – WESTERN ALIGNMENT

PETITIONERS NORTHERN PLAINS RESOURCE COUNCIL AND MARK FIX'S PETITION FOR RECONSIDERATION

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<sup>&</sup>lt;sup>1</sup> This decision, and consequently this Petition, also embraces Tongue River R.R.—Rail Construction and Operation—In Custer, Powder River and Rosebud Counties, MT, STB Finance Docket 30186 (Service Date May 9, 1986), and Tongue River R.R. Company—Rail Construction and Operation—Ashland to Decker, MT, STB Finance Docket No 30186 (Sub-No. 2) (Service Date Dec. 1, 1997).

# PREFACE AND SUMMARY OF ARGUMENT

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Petitioners Northern Plains Resource Council and Mark Fix (collectively "Northern Plains"), pursuant to 49 C.F.R. § 1115.3, respectfully request that the Surface Transportation Board ("Board" or "STB") reconsider its June 14, 2011 denial of Northern Plains' *Petition to Reopen the Record. Tongue River R.R. Co., Inc. – Constr. And Operation – W. Alignment*, No. 97-70037, 2011 WL 2421152 (S.T.B.). This Board's denial errs as a matter of law. This petition for reconsideration explains why there is substantial new evidence and changed circumstances that were not present in 2007 when the latest EIS was approved.

NEPA requires agencies to take a "hard look" at the environmental effects of their planned action, even after a proposal has received initial approval. *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 373-374 (1989). This Board failed to take a "hard look" at the evidence presented by Northern Plains', instead relying on excuses of detrimental reliance and administrative repose, ignoring that the Otter Creek leases present changed circumstances, and brushing aside new evidence concerning climate change.

As previously presented in the *Petition to Reopen*, the Otter Creek mine is now a virtual certainty; as a connected action and/or as a cumulative impact, the effects of the mine must be taken into consideration when approving the railroad. Next, there is remaining major federal action before the STB because this Board retains significant discretion over the TRR, the project is still subject to modification, and this Board may reopen the proceedings for the purposes of mitigation or even revocation. Thus there are material changed circumstances and substantial new evidence that were not taken into account – mining at Otter Creek is no longer speculative and there are numerous new scientific studies and reports acknowledging the human cause of climate change and the drastic effects of GHGs if real action is not taken immediately.

## INTRODUCTION

Petitioners Northern Plains Resource Council and Mark Fix (collectively "Northern Plains"), pursuant to 49 C.F.R. § 1115.3, respectfully request that the Surface Transportation Board ("Board" or "STB") reconsider its June 14, 2011 denial of Northern Plains' *Petition to Reopen the Record. Tongue River R.R. Co., Inc. – Constr. And Operation – W. Alignment*, No. 97-70037, 2011 WL 2421152 (S.T.B.). This Board's denial errs as a matter of law. This petition for reconsideration explains why, and provides additional evidence that proves that there is substantial new evidence and changed circumstances that were not present in 2007 when the latest EIS was approved.

# I. The Standard for Reconsideration.

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This Board has the authority to reconsider its denial of Northern Plains' *Petition to*Reopen, and should do so because Northern Plains' has shown that the STB's, "prior action will be affected materially because of new evidence or changed circumstances." 49 C.F.R. § 1115.3.

When deciding whether to reopen, this Board was required to decide whether the "information, taken as presented, would so materially alter or change the case that one might now reasonably reach conclusions different from the original conclusion." Santa Fe S. Pac. Corp.-Control-S. Pac. Transp. Co., 3 I.C.C.2d 926, 934 (July 30, 1987). Instead, this Board brushed aside and ignored the new information Northern Plains had to offer. Given that this Board conditions its approval (and continuing approval) for new railroads under the public convenience and necessity standard (PCN), which must factor environmental impacts into the overall public interest, and given that the Petition to Reopen makes clear that there are significant unaddressed environmental issues that have arisen after the 2006 SEIS, this Board may indeed

reach different conclusions than it did when it determined that TRR I, II and III all met the PCN standard. Therefore, this Board should carefully reconsider it denial of Northern Plains' Petition to Reopen.

# II. The Environmental Issues at Stake Outweigh Any Detrimental Reliance and Administrative Repose.

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This Board incorrectly determined that the detrimental reliance and need for administrative repose outweigh concerns for human health and the environment. While it may be true that concerns for reliance and repose become greater the longer the time between the decision and the time a petition for reopening is filed, those concerns are largely muted by TRRC's nearly complete lack of action for over 26 years. One can hardly blame Petitioners for TRR's ever-shifting corporate structure, and changes in TRR's design, purpose, and function over 26 years. That structure has changed once again with the July 1, 2011 announcement that BNSF, Arch Coal (the owner of Otter Creek) and billionaire Forrest Mars now own TRR. The record here shows the final right of way has been determined, that there are no on-going negotiations with landowners to even acquire the right of way, and that no easement from the State of Montana across the Miles City Fish Hatchery is under active consideration. Not one inch of track has been laid. The TRR is anything but final.

This Board put too much emphasis on the amount of time that has passed between it latest EIS and the *Petition to Reopen*. This Board's reliance on *Ind. Hi-Rail Corp.--Lease & Operation Exemption--Norfolk & W. Ry. Line Between Rochester & Argos, Ind.*, FD 32162 (STB served Jan. 30, 1998) was misplaced because in that case, which merely involved a change in the lessee of a railroad, the "action [would] not significantly affect either the quality of the human environment or the conservation of energy resources." *Id.* at \*4. Additionally, *Ind. Hi-Rail Corp.* 

is distinguishable from the case at hand because TRRC has not shown any detrimental reliance that can't be undone despite the passage of several years.

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The fact of the matter is that the TRRC has had the opportunity to begin construction for 26 years. They haven't. This Board found that since its "2007 decision became effective, TRRC had the right to proceed with many preconstruction steps incidental to any major new rail line construction, such as obtaining the requisite easements or rights-of-way, securing financing commitments, complying with other federal and state regulations and processes, and developing final construction design and engineering plans." 2011 WL 2421152, at \*6. They haven't. This Board's denial of the Petition for Reconsideration did not analyze what the TRRC has done to detrimentally rely on its approval. Simply having the right to proceed with construction does not create detrimental reliance. Indeed this record shows that TRR itself voluntarily suspended the whole proceeding for nearly 3 years back in 2001-2004. TRR hasn't yet taken the land from the ranchers who have lived in the Tongue River Valley for generations; it hasn't signed any agreement with the State regarding the Miles City Fish Hatchery; it hasn't submitted final construction and engineering plans. Little weight should be given to the detrimental reliance aspect of the decision because the TRRC has done relatively little since the line was approved.

This Board should not blindly accept TRRC's claim of detrimental reliance. Reliance and repose are to be balanced against any benefits to be derived from reopening. See Greater Boston Television Corp. v. F.C.C., 463 F.2d 268, 289 (D.C.Cir. 1971). In this case, this Board did not acknowledge or discuss the benefits of reopening. It did not discuss the science that says small increases in GHGs, even less than 1%, have serious implications for human health and the environment. Or the enormous impacts from the now certain, and now inexorably linked Otter Creek mine. The science we now have paints a very different picture from just a few years ago

and requires a supplemental EIS. See Westlands Water Dist. v. U.S. Dept. of Interior, 275

F.Supp. 2d 1157 (E.D. Cal. 2002) (finding that new information is significant as may warrant

SEIS where it provides a seriously different picture of the environmental landscape.). Business
as usual is not sustainable. This Board's decision to ignore the new scientific viewpoint of the
federal government is unsupportable. See Friends of the Atglen-Susquehanna Trail, Inc. v.

Surface Transp. Bd., 252 F.3d 246, 264-265 (3rd Cir. 2001).

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NEPA requires agencies to take a "hard look" at the environmental effects of their planned action, even after a proposal has received initial approval. *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 373-374 (1989). Courts have previously required an agency to prepare a supplement EIS despite the inability to determine, as a matter of law, that new information would have a significant environmental effect. *Essex County Preservation Ass'n v. Campbell*, 536 F.2d 956, 961 (1st Cir. 1976). The public should have an opportunity to analyze and access this new information. *Id*.

# III. There is Remaining Major Federal Action before the Board.

A. The Board retains significant discretion over the TRR, as required under NEPA jurisprudence, sufficient for it to complete a Supplemental EIS.

In *Marsh*, the U.S. Supreme Court ruled that the decision whether to prepare a supplemental EIS requires there be a remaining "major Federal actio[n]." 490 U.S. at 374. In denying Northern Plains' *Petition to Reopen*, this Board held that there was no remaining major federal action to occur. 2011 WL 2421152, at \*5. This Board's conclusion is based on a misunderstanding of Supreme Court decisions, lower court cases clarifying the jurisprudence, and the relevant regulations.

There is no single test to determine what constitutes "major federal action." *Hammond v. Norton*, 370 F.Supp 2d 226, 255 (D.D.C. 2005). "Courts have taken a somewhat nuanced

approach to the issue of whether a federal action remains to occur." Protect Lake Pleasant, LLC v. Connor, 2010 WL 5638735 at \*21 n. 20 (D. AZ. July 30, 2010). The resolution of the issue "is highly fact-intensive." Id. In a situation where federal involvement is largely confined to authorizing a project, however, the court of appeals has made clear that if the actions remaining are "purely ministerial," or if the agency has no discretion that might usefully be informed by further environmental review, then there is no "major federal action" and no SEIS must be prepared. Citizens Against Rails-to-Trails v. Surface Transp. Bd., 267 F.3d 144, 1151 (D.C. Cir. 2001) (citations omitted). STB has already discounted its own theory by reopening TRR I and TRR III SEIS, and imposing new conditions on the entire rail line.

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Here, this Board treated the grant of authority to construct and operate the rail line as the only major federal action in question. 2011 WL 2421152, at \*5. Similar arguments have been rejected by district courts in the Ninth Circuit. In *Sierra Club v. Bosworth*, the government argued that there was no remaining major federal action and thus no obligation to supplement its EIS for a logging project when it had already approved the timber sale contract. 465 F.Supp.2d 931, 938-39 (N.D. Cal. 2006). The court rejected the argument and developed a three-prong analysis that has been used by other courts and is applicable here.

First, the court looked at whether the action in question involved a site-specific project such as the dam contemplated in *Marsh* or a programmatic plan like the land use plan considered in *Norton v. Southern Utah Wilderness Alliance*, 542 U.S. 55 (2004) (*SUWA*). Sierra Club, 465 F.Supp 2d at 939. Here the railroad project is site-specific and thus more akin to *Marsh*; *SUWA* is inapposite. This Board's reliance on *SUWA* is therefore misplaced. 2011 WL 2421152, at \*5.

Once the court determined that the project was site specific, it inquired into whether the agency maintained any oversight or involvement after the contract or permit was issued. Sierra

Club, 465 F.Supp 2d at 939. Here, this Board cited to Cold Mountain v. Graber, 375 F.3d 884, 894 (9th Cir. 2004) for the proposition that an "agency's NEPA obligation [was] fulfilled once it issued a permit, even though [the] permit contained restrictions that might require agency monitoring and oversight, and 'perhaps even action.'" 2011 WL 2421152, at \*5. This Board's characterization of the case is wrong. The district court in Sierra Club specifically stated that, "in Cold Mountain, the court gave no indication that the Forest Service maintained any ongoing oversight or involvement in the administration of the special use permit once it was issued." Sierra Club, 465 F.Supp 2d at 939. The court placed significance on whether the agency had the authority to "unilaterally terminate the contract if its original environmental analysis has been altered by, for example, significant new information regarding its effects on a native species." Id.; see also Southern Utah Wilderness Alliance v. Office of Surf. Min. Reclamataion and Enforcement, 2008 WL 4912058 at \*12 (D. Ut. Nov. 14, 2008) (there is remaining federal action if the agency can "determine the terms and conditions of the projects' approval."). The court in Klamath-Siskiyou Wildlands Center v. U.S. Forest Service broadened this concept when it held that major federal action remained after a site-specific project had received approval if the agency retained the right to modify the action based on environmental concerns. 2007 WL 2068667 at \*1-2 (D. Or. July 16, 2007). In this case, the STB retains that discretion to modify or cancel the action based on environmental concerns, thus, there remains a major federal action.

# B. The project is still subject to modification.

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Courts look to whether there has been final approval of a project when determining whether there is remaining major federal action. Sierra Club, 465 F.Supp.2d at 939. The Sierra Club court held that because operating plans still needed to be developed, "final approval of the project had yet to be executed at the time the Forest Service awarded the contract and completed

its initial NEPA reviews." *Id.* This case is analogous. While this Board has approved the project and completed its initial NEPA reviews, it still has to authorize the final alignment after the TRRC completes its final engineering studies. TRR III FSEIS 2-7. This Board went so far as envisioning the creation of new mitigation measures if the final alignment had significant effects that the existing mitigation measures would not be adequate to address. *Id.* TRR itself recently submitted engineering studies showing for a substantial re-routing of a section of the line.

Exhibit A. In Appendix B of the TRR III approval decision, STB imposed numerous Mitigation Measures to the entire line, including Mitigation Measure 15 which allows the Board to re-open the entire mitigation package. Because this Board has not authorized the final alignment, there is remaining "major federal action." *Sierra Club*, 465 F.Supp.2d at 939.

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# B. The Board has reopened these proceedings in the past and may reopen the proceedings for purposes of mitigation.

The Board has opened this proceeding in the past, for example to remove the three year construction limitation period, and to revaluate the TRR I and TRR II NEPA documents. Reopening a proceeding "for any reason," even if only to reaffirm the original order, gives the Board jurisdiction to review every aspect of the reopening order. *See ICC v.BLE*, 482 U.S.270, 277-8 (1987).

This Board retains significant discretion to reopen the proceedings to modify the action based on environmental concerns. David Coburn, legal counsel for intervenor Tongue River Railroad, argued to the Ninth Circuit Court of Appeals on July 11, 2011 that the STB can reopen for purposes of mitigation in these proceedings, stating:

[T]he coal dust issue, for example, was looked at, and the STB imposed mitigation. The STB always has the authority to the extent it finds that something it may not have caught during environmental review—the world is not perfect. It

can always reopen. People can go back to the STB, they, they have the authority to reopen.

Northern Plains Res. Council v. STB, No. 97-70037.

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Mitigation Measure 15 in the TRR III FSEIS states that any party can petition the Board to review the adequacy of the imposed mitigation if they can show there is a material change in the facts or circumstances. TRR III FSEIS at ES-13. When Northern Plains pointed out this Mitigation Measure in its *Petition to Reopen*, this Board replied that its retention of a "monitoring role... does not constitute *ongoing*<sup>2</sup> major federal action." 2011 WL 2421152, at \*5. The mitigation measure makes no mention of monitoring. It allows a party to petition the Board to review mitigation measures if there is a material change in facts or circumstances, such as here. CEQ regulations define mitigation to include:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

40 C.F.R. § 1508.20. This Board's ability to impose mitigation measures to avoid impacts that were not previously considered is a major federal action.

This Board's role as the lead agency on the "Task Force" further reinforces the fact that it retains significant involvement in the project. The Task Force is a group of agencies that are

<sup>&</sup>lt;sup>1</sup> Audio Available for Oral Argument at 33 minutes:15 seconds, available at http://www.ca9.uscourts.gov/media/view\_subpage.php?pk\_id=0000007763.

<sup>&</sup>lt;sup>2</sup> "The Supreme Court's decision in *Marsh* contemplates that there must be federal action *remaining* to occur, not necessarily 'ongoing.'" *Oregon Natural Res. Council Action v. U.S. Forest Service*, 445 F.Supp. 2d 1211, 1222 (D. Or. 2006).

responsible for implementing mitigation measures. TRR III ES-12. To this end, this Board is responsible for reviewing and *approving* surveys, plans, and documents created by the TRRC. *Id.* (emphasis added). Mitigation Measure 20 (Task Force Oversight of Revegetation Plan) is a good example:

TRRC's revegetation plans shall be subject to review and approval by the Task Force. . . [W]ork plans shall be approved by the Task Force in accordance with the process set forth in Mitigation Measure 14 before final engineering is complete.

TRR III FSEIS ES-17. This Board's continuing duty to review and approve plans demonstrates its ongoing oversight and ability to modify the project. *Klamath-Siskiyou Wildlands Center*, 2007 WL 2068667 at \*1-2. The CEQ regulations also support Northern Plains' contention that this Board's continuing involvement with the approval of work plans constitutes remaining major federal action. The regulations state, "[a]ctions include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies." 40 C.F.R. § 1508.18(a).

Based on the foregoing, there is remaining federal action before the STB because of its significant discretion over the TRR project, its ability to modify the project, and its ability to reopen the proceedings for the purposes of mitigation.

- IV. The Otter Creek Coal Leases Represent a Substantial Change in Circumstances that Warrants Reopening the Record and Requires Preparing a Supplemental EIS.<sup>3</sup>
  - A. The TRR and Otter Creek Mine are connected actions, therefore the Board must weigh the impacts of burning the coal.

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<sup>&</sup>lt;sup>3</sup> Petitioners want to make clear again that the Otter Creek argument is in the alternative. The record in the pending 9<sup>th</sup> Circuit case established that Otter Creek was reasonably foreseeable in 2007 and thus had to be considered as a cumulative impact. The issue was raised and briefed at the 9<sup>th</sup> Circuit, and the relevant portions of those briefs are incorporated by reference. If the 9<sup>th</sup> Circuit determines that Otter was not foreseeable in the 2006 SEIS because of the lack of a lease, it surely is foreseeable now.

The TRR and Otter Creek mine are connected actions under NEPA. This Board's position is that its approval of the TRR project was not dependent on the development of the Otter Creek mine. Denial at 13. This conclusion fails to consider that if an SEIS was prepared, which analyzed the impacts of the connected actions and found them to be significant, this Board may have decided not to approve the project or to impose different mitigation measures.

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Mike Gustafson, TRRC's president, has said that "I believe that the construction of the TRRC line is essential for the development of substantial coal resources in the Otter Creek area." Arch coal now has a 33.5% membership interest in the Tongue River Railroad. Exhibit

This Board stated that the "existing record supports the conclusion that development of the Otter Creek tracts would not be entirely dependent on the TRR to transport the mined coal, and that the TRR line will have financial viability without the Otter Creek coal mines." Denial at 12. This Board's position that it is "not a given" that Arch's Railroad would provide the rail service for Arch's coal is not credible or based on the reality of the situation. Denial at 12. That statement is belied by the TRR's recent filing showing that the owner of Otter Creek is now an owner of the TRR. *Exhibit A*.

#### B. Mining at Otter Creek is no longer speculative.

This Board has previously ruled that environmental impacts of the Otter Creek coal mine were too speculative to consider in the supplemental EIS prepared for the Western Alignment:<sup>6</sup>

This Board stated, "there was no need to modify the analysis of increased coal production in the

<sup>&</sup>lt;sup>4</sup> TRRC's 2003 Supplement Evidence, Supplemental Verified Statement of Mike T. Gustafson at 4.

<sup>&</sup>lt;sup>5</sup> Exhibit B - Amended Corporate Disclosure Statement of Respondent-Intervenor Tongue River Railroad Company, Inc., N. Plains Res. Council v. Surface Transp. Bd., Docket 97-70037 (9th Cir., July 7, 2011).

<sup>&</sup>lt;sup>6</sup> See Tongue River Railroad Co., Inc. – Construction and Operation—Western Alignment, STB Finance Docket No. 30186 (Sub-No. 3)(Service Date Oct. 9, 2007)("TRR III Approval Decision") at 30.

Ashland/Birney/Otter Creek area beyond what was discussed in the Tongue River I and in Tongue River II proceedings because there are currently no proposals under review for leasing of the Otter Creek tracts..." As such, this Board did not include Otter Creek coal in its supplemental air quality analysis. 2011 WL 242152, at \*7 (S.T.B.). Coal mining at Otter Creek is no longer speculative – STB's sister agency the Bureau of Land Management now formally recognizes that Otter Creek mining and TRR are cumulative impacts within the region that must be evaluated under NEPA.8

In November 2009, Arch Coal, Inc. entered into a coal lease agreement with Great Northern Properties (GNP) covering coal resources on alternate sections in the Otter Creek Tracts in Powder River County, Montana. The coal reserve area is in the "checkerboard" created by railroad land grants in the late 1800's. In March 2010, Arch Coal, Inc. was the successful bidder on State of Montana coal interests on the intervening sections. These coal lease interests comprise approximately 17,900 contiguous acres containing an estimated 1.5 billion tons of surface mineable coal. <sup>9</sup>

In March 2010, the State of Montana awarded coal leases ("Otter Creek Leases") to Ark Land Company ("Ark"), a subsidiary of the multinational Arch Coal Company, for mining in the Otter Creek Basin. These leases are binding contracts.<sup>10</sup> Ark also has acquired rights to mine

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<sup>&</sup>lt;sup>7</sup> Id. (emphasis added).

<sup>&</sup>lt;sup>8</sup> The Bureau of Land Management viewed the Otter Creek mines as a "reasonably foreseeable future action" as early as 2007. See Exhibit C - BLM Nance-Brown AVF Coal Exchange Environmental Assessment at 13-14., available at http://www.blm.gov/mt/st/en/fo/miles\_city\_field\_office.html.

<sup>&</sup>lt;sup>9</sup> See Exhibit D - Arch Coal Application for Prospecting Permit X2011334 Otter Creek Tracts, January 10, 2011 at 1.

<sup>&</sup>lt;sup>10</sup> The Montana Supreme Court and the Ninth Circuit have affirmatively held that a lease is a contract. See Seven Up Pete Venture v. State, 2005 MT 146, 327 Mont. 306, 114 P.3d 1009 (applying Montana contract law to assess whether the State permissibly impaired plaintiff's lease contracts through the enactment of a state statute); see also F.D.I.C. v. Mahoney, 141 F.3d 913, 915 (9th Cir. 1998) (affirming "all leases, however, are a species of contract") (citing RTC v. Diamond, 45 F.3 665, 672 (2d Cir. 1995)).

coal on the State Land and intervening tracts in Otter Creek.<sup>11</sup> The combined tracts make Otter Creek one of the largest new coal mines in North America.<sup>12</sup> Not only does Ark have the leases in hand, it has announced "plans to aggressively pursue the state permitting required to open the mine."<sup>13</sup> It plans to have the mine operational in just 5 years.<sup>14</sup>

In denying the *Petition to Reopen*, this Board concluded that Northern Plains "failed to show that the existence of the leases would lead us to a different conclusion in balancing the transportation benefits of this project against the potential environmental effects." 2011 WL 2421152, at \*6. In particular, this Board stated that "NPRC has not shown that the leases contain information on prospective mining operations at Otter Creek." 2011 WL 2421152, at \*7. This Board noted that the FSEIS lacked information on "when and what kind of development might actually take place." *Id.* n.17. This Board is essentially still claiming that mining is speculative. This position is no longer tenable. Northern Plains has included with this Petition for Reconsideration site-specific information, including a scoping notice for ground disturbing activity, and applications for prospecting permits on the Otter Creek tracts. <sup>15</sup>

The Ninth Circuit has rejected attempts to rely on the "speculation" defense when there is this much information available:

Appellants also complain that the uncertain and speculative nature of oil exploration makes preparation of an EIS untenable until lessees present precise, site-specific proposals for development. The government's inability to fully ascertain the precise extent of the effects of mineral leasing in a national forest is

<sup>&</sup>lt;sup>11</sup> See Exhibit E - Arch Coal Bids \$86 Million on Otter Creek Coal, BILLINGS GAZETTE, Mar. 16, 2010 ("The state-owned coal is interspersed with 730 million tons of coal owned by Great Northern Properties, which agreed last November to lease its coal to Arch for 10 cents a ton.").

<sup>&</sup>lt;sup>12</sup> See Exhibit F - Land Board approves Otter Creek Coal Lease, BILLINGS GAZETTE, Mar. 18, 2010.

<sup>&</sup>lt;sup>13</sup> See Exhibit G - Arch Coal says it will be aggressive, BILLINGS GAZETTE, July 13, 2010.

<sup>&</sup>lt;sup>14</sup> *Id*.

<sup>&</sup>lt;sup>15</sup> See Exhibit D - Arch Coal Application for Prospecting Permit X2011334 Otter Creek Tracts, January 10, 2011.

not, however, a justification for failing to estimate what those effects might be before irrevocably committing to the activity.

Connor v. Burford, 848 F.2d 1441, 1450 (9th Cir. 1988) (citation omitted).

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This Board admits that it used the Otter Creek coal in its viability analysis in the FSEIS, but failed to explain why it claimed it was too speculative to include in the air analysis. 2011 WL 2421152, at \*7. Additionally, this Board severely underestimated the amount of coal to be generated from Otter Creek, predicting that only 18 million tons would be generated a year, *Id.*, when in fact Otter Creek could generate up to 33.2 million tons annually. This figure is nearly double the first forecast and was "not previously evaluated and considered." *Id.* (citing N. Idaho Cmty. Action Network v. DOT, 545 F.3d 1147, 1157-58 (9th Cir. 2008)). This analysis should be conducted by this Board in the first instance, not its legal counsel.

Instead of resolving that mining at Otter Creek is reasonably foreseeable in light of the fact that Arch holds leases, this Board attempted to skirt the issue in a footnote by claiming the railroad will not cause any significant increase in coal demand. Denial at 10 n.20. The Board is wrong – it can't know if Otter and the new owners of TRR will change coal demand or consumption if it hasn't properly analyzed it. And the Board is further wrong because even if coal demand does not change, mining Otter will cause enormous impacts, along with those caused by the railroad, to the people, water and wildlife of the Tongue River Valley. This Board has essentially employed a proximate cause analysis, similar to that in the U.S. Supreme Court case *Dept. of Transportation v. Public Citizen*, 541 U.S. 752, 770 (2004). The Court held that "where an agency has *no ability* to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant "cause" of the

<sup>&</sup>lt;sup>16</sup> Tongue River III, DSEIS at 6-5; See Exhibit H – Otter Creek Valuation Report, *Montana Otter Creek State Coal Valuation*, at 3-5 (Jan. 30, 2009).

effect." *Id.* (emphasis added). In determining that there was no causal link, the Court stressed that "a critical feature" to its decision was that the agency had "no ability to countermand the President's lifting of the moratorium or otherwise categorically to exclude Mexican motor carriers from operating within the United States." *Id.* at 766 (emphasis added).

In this case, this Board has the ability to prevent climate change to the extent it must consider environmental concerns in its public necessity and convenience determination. *Alaska RR Corp.*, 2010 STB Lexis 171 at \*24 (Served Jan 6 2010) ("In a rail construction case we weigh environmental concerns against transportation concerns in evaluating the public interest.

Environmental impacts can lead this Board to find that a proposal is not consistent with the public convenience and necessity"). The Board may find ways to modify or mitigate the project even if continued approval is warranted. If this Board has made the determination that the public needs the coal, then it must consider and weigh the impacts on the public of mining, transporting and burning that coal. *See Oregon Natural Res. Council v. Brong*, 492 F.3d 1120, 1134 n.20 (9th Cir. 2008); *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 104-05 (D.D.C 2006).

# V. New and Material Evidence on Climate Change that was not previously Available to the Board Warrants Reopening of the Record and Supplementation of the EIS.

An EIS must be supplemented "where new information that is relevant to environmental concerns is presented after a FEIS has been prepared." Draft Supplemental EIS for TRR, Inc. – Construction and Operation – Western Alignment, STB Finance Docket No. 30186 (Sub-No. 3) (Service Date Oct. 15, 2004) at 1-13 (emphasis added). The evidence NPRC has presented is "new evidence" because it was not "reasonably available to the parties before the proceeding was concluded," or "evidence long available and susceptible of production months before." Platnick Bros., Inc. v. Norfolk & W. Ry. Co., 367 I.C.C. 782, 785 (1983); United States v. N. Pac. Ry. Co., 288 U.S. 490, 494 (1933). The climate change reports, papers, and cases already presented to

this Board in Northern Plains' *Petition to Reopen* were all published after the proceedings before this Board ended. Additionally, NPRC's evidence is new because it contains significant "new substance." *Friends of Sierra R.R. v. ICC*, 881 F.2d 663, 667 (9th Cir. 1989). The substance and final conclusions of these reports are new and material, far beyond what was known by the parties in 2005 when comments were solicited on the TRR III Draft SEIS.<sup>17</sup> Finally, these reports and studies are highly relevant to environmental concerns because they state with more certainty than ever before that human activity—emitting GHGs—is the cause of climate change.<sup>18</sup>

This Board claims that the information submitted by Northern Plains does not discredit its conclusion that increasing GHG emissions less than one percent will have significant impact on the environment. 2011 WL 2421152, at \*10. That is a scientific determination that should have been analyzed in a supplemental EIS. Indeed such an attitude underlies the Board's denial of the Petition to Reopen – that an SEIS will add nothing of importance. The Board misstates the role of NEPA which is to examine, with public involvement, significant potential impacts. The Board short-circuits NEPA by proclaiming that no beneficial analysis can result, without the benefit of actually doing the analysis. The new science submitted by Petitioners indicates that every increase in GHG emissions will have a highly significant impact on the environment. As stated previously, these studies and reports present a huge volume of new and significant

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<sup>&</sup>lt;sup>17</sup> Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report – Summary for Policymakers, 2 (Nov. 2007), available at <a href="http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\_syr\_spm.pdf">http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\_syr\_spm.pdf</a>. (stating for example, "[s]cientific progress since the Third Assessment Report (TAR) is based upon large amounts of new and more comprehensive data, more sophisticated analyses of data, improvements in understanding of processes and their simulation in models and more extensive exploration of uncertainty ranges.").

<sup>&</sup>lt;sup>18</sup> Id. at 3, 10. (The Report states, "[t]he understanding of anthropogenic warming and cooling influences on climate has improved since the TAR, leading to a very high confidence that the global average net effect of human activities since 1750 has been one of warming." In addition, the Report says, "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the increase in anthropogenic greenhouse gas concentrations. This is an advance since the TAR's conclusion.").

evidence concerning the serious effects of climate change and the need for immediate action, and thus, they must be taken into consideration.

In response to this Board's conclusion that the Draft Guidance and EPA's GHG Tailoring Rule do not necessitate reopening this case, NPRC did not cite those documents because the regulations are directly applicable to the STB, but rather because of the content, new evidence and broad policy implication they present. The Draft Guidance and Tailoring Rule show that the government acknowledges climate change, its human cause, and the effects of GHGs. <sup>19</sup> Additionally, these documents show that the government recognizes the gravity of the situation, and is taking action regarding climate change.

This Board is required to weigh the environmental costs of this project in making its necessity determination. Alaska RR Corp., 2010 STB Lexis 171 at \*24 (Served Jan 6 2010) ("In a rail construction case we weigh environmental concerns against transportation concerns in evaluating the public interest. Environmental impacts can lead this Board to find that a proposal is not consistent with the public convenience and necessity"). Any increase in GHG emissions is significant—it may hasten the profoundly damaging impacts of climate change on every human, plant, and animal on this planet. Therefore, this Board should reconsider its denial of Northern Plains' Petition to Reopen to take this new evidence into account.

#### Conclusion

Northern Plains respectfully requests that this Board reconsider its denial of the *Petition* to *Reopen* due to the material change in circumstances and the substantial new evidence. The

<sup>&</sup>lt;sup>19</sup> EPA's Title V Greenhouse Gas Tailoring Rule, 75 FR 31514, 31519 (June 3, 2010). (The Tailoring Rule states, "[h]uman activities are intensifying the naturally occurring greenhouse effect by increasing the amount of GHGs in the atmosphere, which is changing the climate in a way that endangers human health, society, and the natural environment."); Council on Environmental Quality, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, 1 (February 2010) (The Guidance states, "CEQ proposes to advise Federal agencies that they should consider opportunities to reduce GHG emissions caused by proposed Federal actions and adapt their actions to climate change impacts throughout the NEPA process and to address these issues in their agency NEPA procedures.").

Otter Creek mine and TRR are connected actions, and the effects of the mine must be taken into consideration when approving the railroad. There is remaining major federal action before this Board allowing it to require a Supplemental EIS. And most importantly, mining at Otter Creek is no longer speculative and there are numerous new scientific studies and reports acknowledging the human cause of climate change and the drastic effects of GHGs if real action is not taken immediately.

# Respectfully submitted,

Jack R. Tuholske, Esq.

TUHOLSKE LAW OFFICE, P.C.

P.O. Box 7458

Missoula, Montana 59807 Telephone: (406) 396-6415

Fax: (406) 728-8445 jtuholske@gmail.com

Counsel for Petitioners

I declare under penalty of perjury that the foregoing it true and correct to the best of my knowledge, and that I am authorized to file this pleading on behalf of Petitioners.

Executed on July <u>22</u>,-2011

Jack R. Tuholske, Esq.

Counsel for Petitioners

# BEFORE THE SURFACE TRANSPORTATION BOARD WASHINGTON, DC 20423

STB Finance Docket No. 30186 (Sub.-No.3)

# **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on July 23, 2011 copies of Northern Plains Resource Council's and Mark Fix's Petition for Reconsideration were served via United States Postal Service first-class mail, with adequate prepaid postage on all parties of record in this proceeding.

SIGNED and DATED this 23ed day of July 2011.

Kathy Clark, paralegal

TUHOLSKE LAW OFFICE, P.C.

P.O. Box 7458

Missoula, Montana 59807 Telephone: (406) 396-6415

Fax: (406) 728-8445 jtuholske@centric.net

Counsel for Petitioners

<sup>&</sup>lt;sup>1</sup> This decision, and consequently this Petition, also embraces Tongue River R.R.—Rail Construction and Operation—In Custer, Powder River and Rosebud Counties, MT, STB Finance Docket 30186 (Service Date May 9, 1986), and Tongue River R R. Company—Rail Construction and Operation—Ashland to Decker, MT, STB Finance Docket No 30186 (Sub-No. 2) (Service Date Dec. 1, 1997).

# BEFORE THE SURFACE TRANSPORTATION BOARD WASHINGTON, DC 20423

STB Financ	e Docket No	o. 30186

# TONGUE RIVER RAILROAD COMPANY, INC. RAIL CONSTRUCTION AND OPERATION

PETITION OF NORTHERN PLAINS RESOURCE COUNCIL AND MARK FIX TO RECONSIDER ITS DECISION NOT TO REOPEN THE RECORD AND REQUEST THAT THE BOARD PREPARE A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT AND RECONSIDER ITS FINAL DECISION APPROVING THE TONGUE RIVER RAILROAD IN LIGHT OF SUBSTANTIAL CHANGES IN CIRCUMSTANCES AND NEW EVIDENCE THAT MATERIALLY AFFECT THE BOARD'S PRIOR DETERMINATION OF PUBLIC CONVENIENCE AND NECESSITY

# **APPENDIX – TABLE OF CONTENTS**

Exhibit A – Wolf Mountain Engineering Report.

Exhibit B – Amended Corporate Disclosure Statement of Respondent-Intervenor Tongue River Railroad Company, Inc., N. Plains Res. Council v. Surface Transp. Bd., (9th Cir., July 7, 2011).

Exhibit C – BLM Nance-Brown AVF Environmental Assessment

**Exhibit D** - Arch Coal Application for Prospecting Permit X2011334 Otter Creek Tracts January 10, 2011.

Exhibit E - Arch Coal Bids \$86 Million on Otter Creek Coal, BILLINGS GAZETTE, Mar. 16, 2010

Exhibit F - Land Board approves Otter Creek coal lease, BILLINGS GAZETTE, Mar. 18, 2010

Exhibit G - Arch Coal says it will be aggressive, BILLINGS GAZETTE, July 13, 2010

Exhibit H - Otter Creek Valuation Report, Jan. 30, 2009

# ANALYSIS OF ALTERNATIVES STUDIED FOR ROUTING OF TONGUE RIVER RAILROAD IN THE VICINITY OF THE WOLF MOUNTAINS BATTLEFIELD

# Prepared by Dan Hadley, Mission Engineering<sup>1</sup>

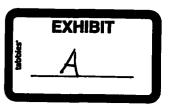
## Introduction

The October 2006 Final Environmental Impact Statement ("EIS") issued by the Surface Transportation Board ("STB") in the *Tongue River III* proceeding concludes on the basis of the STB's review of the relevant facts that there are no feasible alternatives to a routing for the Tongue River Railroad ("TRR") through a portion of the Wolf Mountains Battlefield. That routing is referred to here as the Approved Alignment.<sup>2</sup> In its final decision issued in that proceeding in October 2007, the STB relied on the Final EIS to approve this Alignment through the Battlefield.<sup>3</sup>

This report has been prepared by Mission Engineering to summarize, on the basis of the intensive study of alternative routing on which the EIS relied, and updates to that study, the facts relevant to the consideration of the approved and alternative alignments in the vicinity of the Wolf Mountains Battlefield.<sup>4</sup> The report will explain in detail for the participants in the Section 106 process for the TRR rail line why there are no feasible alternatives to the Approved Alignment. The report will provide the basis for a presentation that will be made on this issue by Mr. Dan Hadley and Mr. Larry Parker on the first day of the meeting of consulting parties on the Programmatic Agreement planned for June 21-23, 2011 in Rapid City, SD.

# **Background**

<sup>&</sup>lt;sup>4</sup> Mission Engineering had provided the facts underlying the comparative route analysis that was referenced in the STB's Final EIS and set forth at Appendix I of that Final EIS.



<sup>&</sup>lt;sup>1</sup> Mr. Hadley is the principal of Mission Engineering, a Billings-based engineering firm that has consulted with TRRC in this matter. This paper was prepared with the assistance of Mr. Larry Parker, a rail management consultant, with respect to maintenance and operations issues. Mr. Parker was formerly Director of Asset Management for BNSF Railway.

<sup>&</sup>lt;sup>2</sup> See discussion at pages 2-18 through 2-21 and Appendix I of the Final EIS issued in STB Finance Docket No. 30186 (Sub No. 3), *Tongue River Railroad Company, Inc. — Construction and Operation — Western Alignment (Tongue River III)*. The STB's EISs and decisions refer to the site by its alternate name as the "Battle Buttle Battlefield."

<sup>&</sup>lt;sup>3</sup> See pages 30-31 of the Board's October 7, 2007 final decision in the TRRC III proceeding.

The Battle of Wolf Mountains (also known as Battle Butte or the Battle of Belly Butte) took place on January 8, 1877. The battlefield site is located approximately 4 miles southwest of Birney, Montana.

In 2001, the battle site was listed on the National Register of Historic Places. In 2008, following the STB's final decision in *Tongue River III*, the Wolf Mountains Battlefield site was designated as a National Historic Landmark ("NHL").

The Wolf Mountains Battlefield NHL boundary spans the width of the Tongue River valley for approximately two and one half miles, and extends along the axis of the river for about two miles. The Battlefield is naturally divided into three sections by two waterways passing through the site: the Tongue River passes through the center of the site, separating the eastern and western portions of the battlefield and Battle Butte Creek, a dry ephemeral stream, also passes through the site. Straddling Battle Butte Creek at its intersection with the Tongue River are two areas significant to the battle. East and slightly north of the junction is the field where federal army troops established their camp. West of the campsite, a plateau rises from Battle Butte Creek's intersection with the Tongue River. See the aerial photo, with the rail line and other relevant information shown, attached as Exhibit A.<sup>5</sup> This elevation (known locally as Battle Butte) follows the smaller stream across the valley floor to the mouth of a small canyon approximately one-half mile from the river. To avoid confusion, the "Battle Butte" referred to here is not the Battle Butte unfortunately miss-marked on the U.S.G.S. map of the area. The location referred to as Battle Butte by participants, and locals today, is the plateau north of County Road 314. It is distinguished by the conical knoll in its center.

The Approved Alignment of the TRR line through the Wolf Mountains Battlefield NHL site is shown in Exhibit A. The existing county road and an existing power line corridor that traverse through the same area of the Battlefield are also shown. The Approved Alignment was considered in detail in the STB's EISs in the *Tongue River III* proceeding at pages 4-126 and 5-19 to 5-20 of the Draft EIS and 2-18 to 2-21 of the Final EIS. According to the Final EIS, the alignment which the STB subsequently approved (which had been refined from an earlier alignment, as noted further below) would not "pass through the BLM's established 'Area of Critical Environmental Concern" which had been identified on the battlefield site. As refined, the line would be about 1/2 mile south of the core area of the battlefield

<sup>&</sup>lt;sup>5</sup> The information shown on Exhibit A concerning battle-related locations is drawn from a map embedded in the following 2001 article on the Wolf Mountains battle: <u>Nelson A. Miles, Crazy Horse and the Battle of Wolf Mountains</u>, by Jeffrey V. Pearson, found at

http://visitmt.com/history/Montana the Magazine of Western History/wolfmountain.htm. Mr. Pearson's article was drawn from research undertaken in connection with the application for inclusion of the battlefield on the National Register of Historic Places. The various battlefield locations shown on the map are also consistent with those shown on a set of maps attached to the application for inclusion of the battlefield on the National Register of Historic Places.

In its October 7, 2007 final decision, the STB noted that the Approved Alignment through the Battlefield "would place the line approximately 1,100 feet farther to the south, and farther from an identified Cheyenne grave site" and that the "bypass routings [around the Battlefield site] were carefully assessed, but were found to be infeasible because of potential engineering and environmental concerns." It was in that decision that the STB authorized TRR to construct and operate over the Approved Alignment.

Through the Programmatic Agreement process, further refinements to the Approved Alignment can be made in order to avoid, to the maximum extent possible, cultural resources that are located in the area.

# Relevant Rail Line Design Criteria

The initial alignment for this portion of the TRR line was developed to facilitate the operation of unit coal trains of 115 to 125 cars with design speeds of between 45 and 55 miles per hour. With additional input from local landowners, the National Park Service and the Bureau of Land Management, along with the BNSF Railway company, the alignment was refined in 1998. These refinements were made to better meet environmental concerns such as non-encroachment upon flood plains and critical wildlife habitat, and still meet TRR's railroad design and safety standards for the entire line, which are based on the following engineering criteria:

- Maximum horizontal curvature of 3 degrees;
- Minimum tangent distance between horizontal curves of 200 feet;
- Maximum grade against empties of 1 percent compensated for curvature;
- Maximum grade against loads of 0.50 percent;
- Maximum vertical curvature shall be 0.05 feet per 100 feet in sags and 0.10 feet per 100 feet at summits.

In addition, the following environmental criteria were also used in choosing the alignment for the TRR Line:

- avoid to the extent possible Tongue River flood-plain;
- avoid to the extent possible prime farmland/cropland;
- avoid to the extent possible wetland areas;
- avoid unnecessary crossings of the Tongue River;
- parallel the existing transportation and utility features to minimize impact; and,

• to the extent possible limit the amount of right-of-way required.

The earthwork design criteria included the cuts and fills necessary to construct a roadbed on which to place the mainline trackage. Cut and fill slope ratios were chosen to minimize the amount of excavation required to obtain a balance of material without jeopardizing the stability of the constructed slopes. Low, medium and high cut and/or fill slope ratios were selected based on the following criteria:

- Low cut/fill slope ratios were used when the natural side slopes were less than 30 percent.
- Medium cut/fill slope ratios were used when the natural side slopes were between 30 and 55 percent.
- High cut/fill slope ratios were used when the natural side slopes exceed 55 percent.

Because the TRR alignment traverses rough terrain along the section of the line in the vicinity of the Battlefield, special design criteria have been considered. For cuts and fills exceeding 100 feet in height, slope ratios would be flattened to provide for greater stability. Horizontal benches would have to be added for every elevation increase of 50 feet. These horizontal benches would not only provide for greater slope stability, but would also intercept and divert water away from the constructed slopes, minimizing slope erosion.<sup>6</sup>

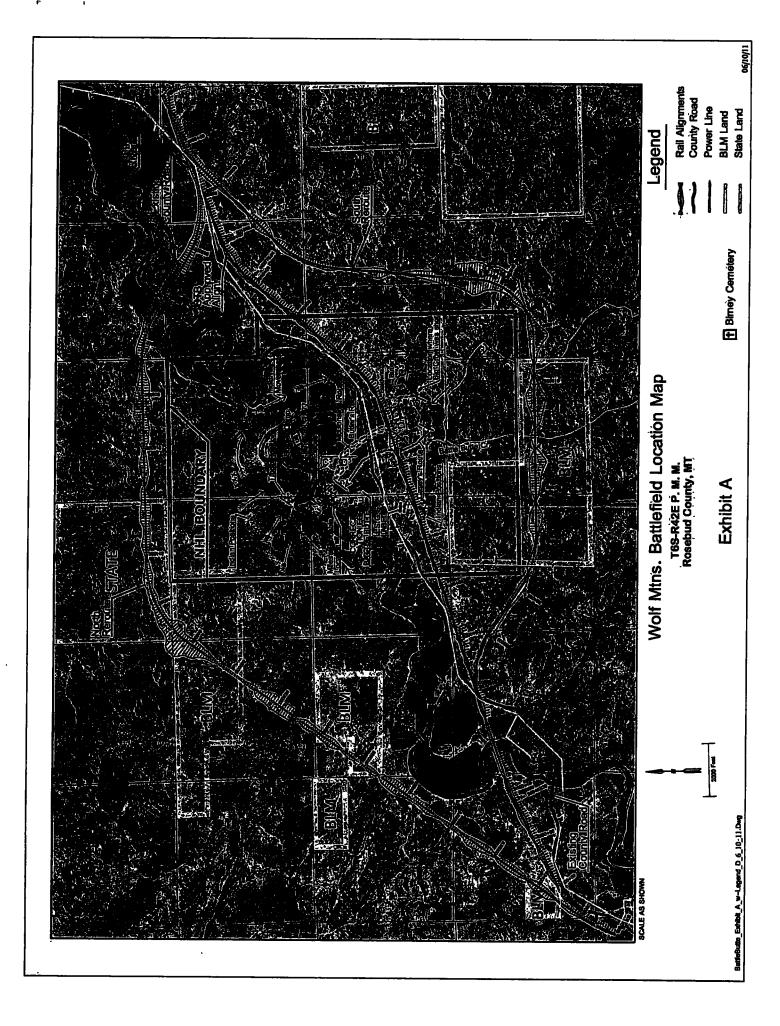
# Routing the TRRC Line Around the NHL Boundary is Not Feasible

Two alternative routings bypassing the battlefield site, both wholly outside the designated NHL boundary, were considered in detail. However, these alternatives were determined to be infeasible for engineering, operational, safety and environmental reasons. The bypass routings, one to the north and the other to the south, of the NHL boundary are in fact inconsistent with the objective of TRRC rail-line – to efficiently and safely transport coal using unit trains while limiting environmental impacts to the maximum extent possible.

The attached Exhibit A illustrates the following:

- Wolf Mountains Battlefield National Historic Landmark boundary;
- Topographic relief surrounding the battlefield site;

<sup>&</sup>lt;sup>6</sup> During the final engineering design process, additional geotechnical information will be gathered for all the major cuts and fills throughout the proposed alignment. Upon completion of the site and laboratory investigations, specific slope recommendations will be made for the final earthwork design.



Case: 07-74348 07/07/2011 Page: 1 of 3 ID: 7811233 DktEntry: 158

# UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

NORTHERN PLAINS RESOURCE COUNCIL, ET AL.,

Petitioners.

v.

SURFACE TRANSPORTATION BOARD, ET AL.,

Respondents.

Nos. 07-74348, 97-70037, 97-70099, 97-70217 (consolidated)

# AMENDED CORPORATE DISCLOSURE STATEMENT OF RESPONDENT-INTERVENOR TONGUE RIVER RAILROAD COMPANY, INC.

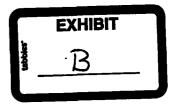
Thomas E. Ebzery Village Center 1 1500 Poly Drive, Suite 165 Billings, MT 59102 (406) 245-4881 tebzery@earthlink.net

John G. Crist Crist, Krogh & Nord, LLC Suite 30 2708 First Avenue North Billings, MT 59101 (406) 255-0400 jcrist@cristlaw.com

Date: July 7, 2011

Betty Jo Christian
David H. Coburn
STEPTOE & JOHNSON LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 429-3000
dcoburn@steptoe.com

Attorneys for Respondent-Intervenor Tongue River Railroad Company, Inc.



Case: 07-74348 07/07/2011 Page: 2 of 3 ID: 7811233 DktEntry: 158

AMENDED CORPORATE DISCLOSURE STATEMENT OF TONGUE RIVER RAILROAD COMPANY, INC.

On July 1, 2011, all of the stock of Tongue River Railroad Company, Inc. was transferred

to Tongue River Holding Company, LLC, a Delaware limited liability company. BNSF

Railway, a wholly owned subsidiary of Berkshire Hathaway Inc., a publicly held corporation,

has a 331/2 percent membership interest in Tongue River Holding Company, LLC. Arch Coal,

Inc., a publicly held corporation, has a 331/3 percent membership interest in Tongue River

Holding Company, LLC. The remaining membership interest in Tongue River Holding

Company, LLC is held by a private investment entity.

By /s/ David H. Coburn

Steptoe & Johnson LLP 1330 Connecticut Avenue, N.W Washington, D.C. 20037

202-429-8063

Attorney for Respondent-Intervenor Tongue River Railroad Company, Inc.

Date: July 7, 2011.

Case: 07-74348 07/07/2011 Page: 3 of 3 ID: 7811233 DktEntry: 158

**CERTIFICATE OF SERVICE** 

I hereby certify that on this 7<sup>th</sup> day of July 2011, I electronically filed the foregoing

Amended Corporate Disclosure Statement of Tongue River Railroad Company, Inc. with the

Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the

appellate CM/ECF system.

Participants in the case who are registered CM/ECF users will be served by the appellate

CM/ECF system. To the best of my knowledge, all counsel of record in this case are registered

users of the electronic filing system.

/s/ David H. Coburn

David H. Coburn

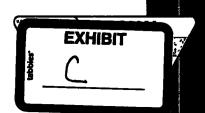
# United States Department of the Interior Bureau of Land Management

# **Environmental Assessment DOI-BLM-MT-CO2O-2011-0005-EA**

Nance-Brown AVF Coal Exchange Rosebud County, Montana

> U.S. Department of the Interior Bureau of Land Management Miles City Field Office 111 Garryowen Road Miles City, Montana 59301

> > October 6, 2010



#### Gravel/Scoria Pits

Some gravel or scoria would be used to surface project area roads and would come from already permitted mineral material sites.

## Colstrip Electrical Generating Facility,

The mine and the town were established in 1924 by the Northern Pacific Railway to provide coal to their steam locomotives. The railroad switched to diesel locomotives in 1958 and sold the mine and town to Montana Power Company in 1959. The Western Energy Company, a subsidiary of the Montana Power Company, resumed strip mining at Colstrip in 1968 to supply coal to the Corrette plant in Billings. In 1971, Montana Power and their Washington and Oregon utility partners began construction on two 330 megawatt mine-mouth power plants in Colstrip. The first Unit was completed in 1975 and Unit 2 in 1976. Then in 1980 the utilities began construction of two 776 megawatt units; Unit 3 was completed in 1984 and Unit 4 in 1986. Montana Power Company operated the plants until 1998 when its interests in the plants were sold to Pacific Power and Light – Montana (PPL MT). PPL MT is the current owner and operator.

#### Railroads

The Colstrip area railroad spur was constructed around 1968 to support the coal shipping activities of the Rosebud Coal Mine and Big Sky Coal Mine. Since the Big Sky Coal Mine stopped all development activities, Rosebud Coal Mine is the only shipper of coal by rail. The rail line runs from Colstrip north 30 miles until it intersects the main rail line located 6 miles west of Forsyth, Montana. Rosebud Coal Mine ships around 2 million tons of coal per year.

The Absaloka Mine railroad spur was constructed around 1974 to carry coal shipments from the mine load out to the main rail line just east of Hysham, Montana, a distance of about 35 miles. Approximately 5 to 7 million tons are being shipped per year.

## Livestock Grazing

Livestock grazing occurs on all of the lands within the Ashenhurst Tract as well as on other lands adjacent to the Rosebud Mine. Livestock grazing would likely continue on lands not affected by mining operations.

#### 2.4.2 Reasonably Foreseeable Future Actions

#### Western Energy Coal Mine Expansion, Rosebud Mine, PPL of Montana

BLM has granted Western Energy Coal Mine permit to drill exploratory test holes within the Ashenhurst Tract. Thus, the Rosebud Mine may potentially expand in a southern direction. This potential mine expansion is described in detail in Appendix A.

# Tongue River Railroad

On October 9, 2007, the Surface Transportation Board issued a decision regarding the Final Supplemental Environmental Impact Statement for the Tongue River Railroad Company's (TRRC) to allow rail line construction and operation in Rosebud and Big Horn Counties, Montana. The document analyzed the 17.3 mile "Western Alignment" route, which had been preceded by two related applications that were considered and approved by the Board in 1986 and 1996, respectively. The Western Alignment is an alternative route for the southernmost portion of the 41-mile Ashland to Decker alignment; known as the Four Mile Creek Alternative. The Western Alignment bypasses the Four Mile Creek alignment, which is generally located from the Birney Road (Hwy 566) and the Tongue River Canyon junction, running west to Hwy 314, then south to the Decker Mine. The Western Alignment would continue south along the Tongue River on the ridge, but paralleling the river and ending around the Spring Creek Mine area. At this time, no construction operations have begun.

## Otter Creek Mine

The Montana State Land Board voted at the March 18, 2010 meeting to approve the lease of the Otter Creek tracts totaling 9,543 acres to Ark Land Company, a subsidiary of Arch Coal. The leases were consummated in April of 2010. The three Otter Creek Tracts contain approximately 572.3 million tons of recoverable coal. Arch had previously leased the intervening privately owned tracts containing about 731 million tons from Great Northern Properties (GNP) in November 2009.

Arch's proposed mining plans are currently under development and are unknown at this time. However the State of Montana contracted valuation study identified two possible Logical Mining Units (LMUs), one to be located on each side of Otter Creek. It was assumed that mine production will begin in year nine of the primary term of the coal leases. It was assumed that two years will be required for baseline studies, five years for permitting, and two years for mine construction. Starting in the ninth year, it is assumed that that coal extraction would commence. The valuation study LMUs were designed to be standard surface mining dragline operations with production to be shipped to existing power plants over the proposed Tongue River Railroad. This study estimated total production from the two LMUs to be around 33 million tons per year.

IMAGED RECEIVED JAN I 1 2011 **DEQ/IEMB** 

**EXHIBIT** 

Simpson & Associates, LLC P. O. Box 250 Clancy, MT 59634

406-933-5384

January 10, 2011

Mr. Chris Yde Coal Program Supervisor Industrial and Energy Minerals Bureau Montana Department of Environmental Quality P. O. Box 200901 Helena, MT 59620-0901

Re: Otter Creek Coal Project; Prospecting Permit Application

Dear Chris:

On behalf of Otter Creek Coal, LLC, I herewith submit two hard copies and one digital copy of an Application for Prospecting Permit. The application covers Otter Creek Tracts 1, 2 and 3, in their entirety; the first phase of drilling is proposed on Tract 2 to support initial mine plan development. Additional drilling in subsequent phases will be added by application for revision as needed for coal resource assessment, environmental analysis and future mine plan development, and as additional surface access is confirmed.

The initial drilling plan includes 44 proposed drill sites in the area of anticipated mining on Tract 2. At this time, no drill sites have been located on Sections 12 and 13, T.4S, R.44E. Access to Section 12 is not yet confirmed, and Section 13 can only be accessed through Section 12. We are optimistic that an access agreement for Section 12 will be in place shortly, and a revision adding drill sites in this area will be proposed at that time.

Please note that two drill sites are proposed on the east half of Section 14, T. 4S, R. 44E. This is public land, and a permit from BLM will be required to access and drill these sites. A right-of-way application will be submitted to BLM in the next few weeks.

Please contact me or Heidi Kaiser at Hydrometrics, Inc. if there are any questions regarding this Prospecting Permit Application. We look forward to working with you and your staff on this project.

C. Heidi Kaiser (Via e-mail) Mike Rowlands, Otter Creek Coal, LLC

specting #334

## APPLICATION FOR COAL AND URANIUM PROSPECTING PERMIT

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 200901
HELENA, MT 59620-0901
Phone (406)444-4970

NAME AND ADDRESS OF APPLICANT (CORPORATIONS OR OTHER BUSINESS ENTITY: GIVE NAMES AND ADDRESSES OF PRINCIPAL OFFICERS, PARTNERS, AGENTS, ETC.)

Otter Creek Coal, LLC P. O. Box 7152 Billings, MT 59101-7152

Coal

. . .

Mike Rowlands, Director, Otter Creek Operations

TELEPHONE NO.: 406-245-0990

MINERAL TO BE PROSPECTED:

**ACRES TO BE DISTURBED** 

5 - Phase 1;

30 - Est. total by later revision

**APPLICATION NO: X2011334** 

Pursuant to Title 82, Chapter 4, Part 2, MCA

Instructions: See rules and regulations pursuant to above.

LOCATION OF PROSPECT AREA: (Sec., Twp., Rge.)

Twp.3S,Rge.45E: Sections 25,26,27,34,35.36

Twp.4S,Rge.45E: Sections 1,2,3,5,6,7,8,9,10,11,12,13,14

**EXPECTED DATES OF:** 

START: COMPLETION:

April-October 2011, Phase 1 Subsequent phases by revision

15,16,17,18,20,21,22,23,24,25,26,27,35

36

**COUNTY: Powder River** 

METHOD OF PROSPECTING: (Refer to maps, drill holes, excavations, etc.)

Rotary and core drilling. See Exhibit 2 and Application Narrative Section ARM 26.4.1001(2)

#### THIS APPLICATION WILL BE ACCOMPANIED BY:

- 1. Maps (see rules and regulations).
- 2. Reclamation and revegetation bond (see rules and regulations).
- 3. Detailed prospecting reclamation plan to include method of reclamation and revegetation.

#### THE APPLICANT AGREES TO

Submit progress reports as required.

thereafter

2. Promptly reclaim the disturbed acreage as outlined in the prospecting plan.

NOTARY:	
Subscribed and sworn to before me this 5th day of fun., 2011 (SEAL) Karen Sable	I, the undersigned, hereby certify that the materials and information contained in this application are complete and are correct to the best of my knowledge.
Karen Sable	SIGNATURE OF APPLICANT
Notary Public for the State of NOTARY PUBLIC for the	William M. Lowbruds
Residing at Billings, Mentana  Residing at Billings, Mentana	William M.(Mike) Rowlands TYPED NAME
March 27, 2014	I FED NAME
	Director, Otter Creek Operations TITLE
My Commission expires	DATE: Sanuary 5, 2011
State of Montana County of Yellowstone	



# Arch Coal bids \$86M on Otter Creek coal

MIKE DENNISON Gazette State Bureau | Posted: Tuesday, March 16, 2010 7:23 pm

HELENA — Coal-mining giant Arch Coal Inc. on Tuesday offered to pay nearly \$86 million for the right to develop state-owned coal in southeastern Montana's Otter Creek Valley, setting up a vote this week on whether the bid will be accepted.

Gov. Brian Schweitzer, one of five state Land Board members who will vote on the bid Thursday, promptly declared it a good deal said he hopes the board will approve it.

Schweitzer also said that if the bid is accepted, the \$86 million expected from Arch Coal likely will influence his pending decision on whether and where to cut the state budget, in the face of falling state tax revenue.

"I think that I will look much more favorably at some of the cuts we've been considering," he said Tuesday evening. "I can tell you that 49 other states in America would pull out their front teeth with vice grips to have this kind of deal."

Schweitzer is considering whether to approve \$40 million in recommended state spending cuts for the next fiscal year.



#### Arch Coal bids \$86M on Otter Creek coal

Arch Coal, based in St. Louis, was the only coal company to submit a bid by Tuesday's deadline, to lease the 572 million tons of state-owned coal.

The bid was at the 15-cents-a-ton minimum set by the Land Board last month, or \$85.8 million.

If the Land Board accepts the bid, Arch Coal must pay the money up-front, giving it a 10-year window to start mining the huge coal field, which is about 150 miles east of Billings.

The state-owned coal is interspersed with 730 million tons of coal owned by Great Northern Properties, which agreed last November to lease its coal to Arch for 10 cents a ton.

Tuesday's bid is the latest development in a decade-old tug-of-war over developing the Otter Creek coal, which was transferred by the federal government to the state in the 1990s when state agreed to block a proposed precious-metals mine north of Yellowstone National Park.

Environmental groups and some landowners near Otter Creek have fought the lease, arguing that a coal mine would destroy a pristine valley, lead to worsening climate change, and harm water resources in the area.

They also have said it will enable construction of the Tongue River Railroad, which is bitterly opposed by some Tongue River Valley farmers and ranchers. The railroad would run from Miles City to Ashland, and possibly ship coal from nearby Otter Creek.

Anne Hedges, program director for the Montana Environmental Information Center, said Tuesday that Montana is poised to give its coal away "for a fraction of what it's worth."

Hedges noted that Arch has huge mine operations in Wyoming, and said the Tongue River Railroad could benefit those mines by providing a new shipping route for their coal.

She also questioned whether the deal between Great Northern and Arch is an arm's-length transaction, suggesting it could have been engineered to make a deal for the state coal more likely, at an affordable price for Arch.

"There is nothing good about this (deal) for Montana, from an economic perspective or an environmental perspective," Hedges said.

Schweitzer, however, said the deal between Arch and Great Northern "is a real transaction," and that the coal company has already paid the first of five installments on its \$73 million bid with Great Northern.

The 15-cents-per-ton bid offered by Arch is three times what a state-hired appraiser said the Montana coal was worth a year ago, he said.

"I can't imagine us getting a better deal than this," Schweitzer said.

Schweitzer also noted that if the bid is accepted, the state gets that money up front — and more funds down the road, if a mine is developed.

"If they don't develop it, we still have the coal, it's in the ground, and we will have spent the \$85 million on teachers and books," he said.

The Land Board originally set the minimum "bonus bid" at 25 cents a ton, back in December. The only company to respond by a Feb. 8 deadline was Arch, which said the amount was too high.

The Land Board decided a week later to lower the minimum bid to 15 cents a ton.



Protesters arrested before 3-2 vote



## Land Board approves Otter Creek coal lease

MIKE DENNISON Gazette State Bureau | Posted: Thursday, March 18, 2010 11:30 am

HELENA — The state Land Board, undeterred by anti-mining protesters who disrupted the board's Helena meeting for 45 minutes until they were arrested, voted 3-2 Thursday to approve leasing 570 million tons of state-owned coal for development of a mine in southeastern Montana's Otter Creek Valley.

The vote by the five-member Land Board approved an \$85.8 million up-front bid on the coal by Arch Coal Inc., giving the St. Louis-based mining giant a 10-year window to develop a mine in the pristine valley 150 miles east of Billings.

Gov. Brian Schweitzer, who voted for leasing the coal, extolled the long-term economic benefits of a new coal mine in the valley, saying it would bring \$5 billion in tax revenue and royalties over the life of a mine and approximately \$250 million a year once the mine is operating.

"This is not one-time money," he said. "Every time the Legislature comes to town (every two years), there will be a pot of \$500 million waiting for them."

If a mine is developed, it would be operating no sooner than five to seven years from now.

State Auditor Monica Lindeen and Secretary of State Linda McCulloch joined Schweitzer in accepting the bid submitted Tuesday by a subsidiary of Arch Coal.

Attorney General Steve Bullock and state Superintendent of Public Instruction Denise Juneau voted against the lease. All five board members are Democrats.

Juneau has opposed leasing the coal from the beginning, saying it's not in the best long-term interest of the state; Bullock board voted in February to lower the minimum bid price. He said the state is not getting the maximum value for its resource.

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The vote came after five protesters disrupted the meeting by chanting "Hands off Otter Creek — you're not listening!" as McCulloch made a motion to vote to approve the lease.

The protesters, who had been sitting in the front row of chairs in the packed meeting room, stood and then linked arms as they sat on the floor, chanting, about 20 feet from the board members.

Schweitzer recessed the meeting and Helena Police officers ordered the room cleared, as they waited for other officers to arrive and assist with arresting the protesters. About 45 minutes later, police had handcuffed and arrested the protesters and taken them to the Lewis and Clark County jail to book them on misdemeanor charges of disorderly conduct.

Arrested were Shelby Cunliffe, 24; Max Granger, 23; Genevieve Schroeder, 21; Mary Rosette, 21; and Michael Phelps, 29, all of Missoula, who said they were associated with Northern Rockies Rising Tide.

Rising Tide describes itself as a network of groups and individuals opposed to fossil-fuel development and ready to "take direct action to confront the root causes of climate change."

The governor and other Land Board members then filed back into the room, reconvened the meeting and discussed the lease before eventually voting to approve it.

Arch Coal has 30 days to sign and return the lease and pay the \$85.8 million bonus bid.

Arch was the only coal company to bid on the state's Otter Creek coal by the Tuesday deadline, offering 15 cents a ton as a bonus bid, to give it a 10-year right to mine the coal. If the mine is developed, Arch also would pay royalties to the state on the state coal and severance taxes on any coal that's mined.

The state coal is interspersed with 730 million tons of privately owned coal, which Arch leased last November for 10 cents a ton.

More than two dozen people came to Helena to speak in favor of the lease, including labor leaders, school superintendents from southeast Montana, area ranchers, economic-development officials and even some advocates for the disabled, who said the \$86 million from the bonus bid could help the state avoid pending spending cuts that have been proposed to help keep the state budget in the black.

Most of the supporters cited the local and state economic benefits of a new coal mine, noting that Eastern Montana is in dire need of good-paying jobs and tax revenue that a mine would bring.

Opponents, including conservation groups, ranchers and farmers living near Otter Creek and at least a dozen Missoula high school and college students, said a massive coal mine would harm water resources, enable a new railroad in the Tongue River Valley and increase global warming.

Beth Kaeding of Bozeman, past president of the Northern Plains Resource Council, said she found it "ironic and cynical" that the same Land Board planned to vote Thursday to protect the North Fork of the Flathead River against mine development, while voting for a new strip mine near Otter Creek.

"Why is southeastern Montana our sacrifice zone?" she asked.

UPDATED 12:55: HELENA - Minutes after anti-mining protesters were arrested and removed by police from the state Land Board's Capitol meeting room, the board voted 3-2 today to approve leasing 570 million tons of state-owned coal for development into a mine in southeastern Montana's Otter Creek Valley.

Gov. Brian Schweitzer, who voted for leasing the coal, extolled the long-term economic benefits of a new, massive coal mine in the valley, saying it would bring \$5 billion in tax revenue over the life of a mine.

"This is not one-time money," he said. "Every time the Legislature comes to town, there will be a pot of \$500 million waiting for them."

State Auditor Monica Lindeen and Secretary of State Linda McCulloch joined Schweitzer in accepting an \$85.8 million "bonus bid" from Arch Coal Inc. of St. Louis to lease the coal for the next 10 years.

Attorney General Steve Bullock and state Superintendent of Public Instruction Denise Juneau voted against the lease. Juneau has opposed leasing the coal from the beginning; Bullock has opposed it since the board voted in February to lower the minimum bid price, saying the state is not getting a fair value for its resources.

The vote came after five protesters from Missoula disrupted the meeting by chanting "Hands off Otter Creek - you're not listening!" as McCulloch motioned for the vote to approve the lease.

#### Land Board approves Otter Creek coal lease

The protesters, who had been sitting in the front row of chairs in the packed meeting room, sat down in the room several feet from board members, chanting, and refused to leave.

Schweitzer recessed the meeting and Helena Police officers ordered the room cleared, as they waited for other officers to arrive and assist with arresting the protesters. About 40 minutes later, police handcuffed and arrested the protesters for disorderly conduct.

The governor and other Land Board members then filed back into the room, reconvened the meeting and discussed the lease before eventually voting on it.

Before the protest, the board listened to 90 minutes of testimony from opponents and supporters of the lease. Opponents said the state is getting a poor deal for the coal, and that it's irresponsible for the state to take part in enabling a huge, new coal mine that will contribute to global warming, other air pollution and damaging of water resources in the area.

Support came from organized labor, school officials near Otter Creek, Arch Coal, economic-development boosters and some disabled citizens, who testified in favor of the lease because, they said, it would help the state with its short-term budget picture and avoid proposed cuts to human services that would affect the disabled.

The lease gives Arch Coal the right to develop the large coal field 150 miles east of Billings, along with its lease of another 730 million tons of privately owned coal that is interspersed with the state coal.

Schweitzer and others said the mine wouldn't be developed until five to seven years in the future.

INITIAL REPORT: A meeting of the state Land Board was halted this morning after five people stood to protest the state's plan to lease coal tracts for development in southeastern Montana.

Helena Police officers were called to the state capitol building to arrest the five people, all members of the Northern Rockies Rising Tide, a Missoula-based environmental organization opposing coal development.

Secretary of State Linda McCulloch had just made a motion to approve the leases when the five protestors stood to say in unison, "Hands off Otter Creek coal. You're not listening."

Gov. Brian Schweitzer, a member of the state Land Board, recessed the meeting and had the room cleared. The five protestors sat down and refused to leave.

St. Louis-based mining giant Arch Coal Inc. has offered nearly \$86 million to develop the state-owned coal in the Otter Creek valley. Schweitzer said Tuesday hoped the board would approve the deal during today's meeting.



Company envisions opening Otter Creek mine in 5 years



## Arch Coal says it will be aggressive

TOM LUTEY Of The Gazette Staff | Posted: Tuesday, July 13, 2010 9:58 pm

New Otter Creek coal developers say they're five years away from opening the mine that, after decades of dead ends, many doubted would ever exist.

Arch Coal, which now controls roughly 1.5 billion tons of Otter Creek coal in southeastern Montana, has appointed a Montana director and plans to aggressively pursue the state permitting required to open the mine. CEO Steve Leer said optimistically that the company could be producing coal by the middle of the decade.

"Montana could be the energy capital of the United States if the state government and the state's community desire that to happen," Leer said.

In March, St. Louis-based Arch Coal agreed to pay Montana \$86 million plus future royalties to mine a half billion tons of coal on state-owned land. The company has secured an additional 731 million tons of coal on multiple parcels of private property intermixed like a checkerboard with the state land.

Leer toured the tracts with Gov. Brian Schweitzer on Tuesday and met with leaders of the Northern Cheyenne tribe. Before heading to the tracts on the Montana-Wyoming border, the CEO and governor met with The Billings Gazette's editorial board.

To date, nothing has gone quickly for proponents of Otter Creek. The Northern Plains Resource Council and National Wildlife Federation are suing the state Land Board, which includes the governor, accusing it of failing to analyze the environmental and community consequences of the mine and a railroad proposed to bring to coal to market.

A second lawsuit filed by the Montana Environmental Information Center and the Sierra Club accuses the Land Board of n

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#### Arch Coal says it will be aggressive

billion tons of carbon dioxide emitted by the mined coal.

Tuesday, Arch Coal's message was that it would not leave Montana holding the bag with cleanup costs, as mining companies have done in the past. Arch Coal, the nation's second-largest coal supplier, controls more than 2 billion tons of coal in Wyoming's Powder River Basin. The company is pointing to its reputation in Wyoming as an indicator of how it will operate in Montana.

The company has partnered on clean coal and energy development research at Washington University in St. Louis as well as the University of Wyoming. Leer said the company would like to have a similar relationship with Montana's university system.

Concerning the climate change and the federal government's push to reduce carbon dioxide emissions, Leer said coal is in a good position to be part of the solution, if for no other reason than other energy resources cannot be developed fast enough to keep up with the world's increasing demand for energy. Developing technology to capture and sequester carbon dioxide will be essential no matter if the energy source is coal or natural gas. Leer said he likes coal's chances of playing a part.

"There is not another way, within the next 30 years, that is likely to stabilize carbon dioxide," Leer said.

Schweitzer said he was directing Arch Coal to the developers of Stillwater Mine for an example of mine development that calmed community concerns about cultural and environmental impacts.

The governor also said he's encouraging the company to familiarize its managers with the culture of the Northern Cheyenne Indians, who will be a stable source of mine employees and a crucial neighbor to the development.

The governor said the mine's potential revenue to the state, excluding wages and associated jobs, exceeds \$7 billion.

## MONTANA OTTER CREEK STATE COAL VALUATION

#### Submitted to:

# MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

TRUST LAND MANAGEMENT DIVISION 1625 11TH AVENUE, PO BOX 201601 HELENA, MT 59620-1601

**JANUARY 30, 2009** 

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#### INCOME APPROACH

#### **GENERAL**

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The value of the remaining Montana state coal leases within the Otter Creek Tracts 1 through 3 was also determined through the Income Approach. This approach involves preparing a discounted cash flow analysis by estimating the annual costs and revenues associated with the development of the coal leases under realistic conditions. The cash flow is discounted to the net present value (NPV) by applying a reasonable discount rate. The discount rate chosen for this analysis is 10% which matches the rate currently used by the U.S. Department of Interior's Bureau of Land Management (BLM)<sup>3</sup>. The following sections describe the assumptions and methodologies used to calculate the NPV for the remaining coal leases with the Otter Creek Tracts.

#### **GEOLOGIC MODEL**

The coal tonnage and qualities within the Otter Creek Tracts 1 through 3 were determined through the use of a geologic model of the deposit compiled using public information and proprietary information provided by GNP-LP. The combination of the geologic data from both sources has produced the most definitive model of the Otter Creek deposit to date. This 3D computer model, prepared using Carlson Mining software, was used to determine the in-place coal tonnages and qualities used in the analyses.

# LOGICAL MINING UNITS (LMUS)

Four logical mining units (LMUs) were indentified in the 2005 Norwest study, which included Montana coal plus federal and private coal parcels. To simplify the valuation process, the two LMUs located on each side of Otter Creek were combined to form logical mining units, LMU 5 on the east side and LMU 6 on the west side. Economic models were created for each of these new LMUs assuming a greenfield surface mining development scenario for each. As discussed further in the text, the predicted coal market will absorb simultaneous coal production from both LMUs. Therefore, the NPVs from each model are combined to produce a single value for the entire coal property.

<sup>&</sup>lt;sup>3</sup> "H-3070-1 – Economic Evaluation of Coal Properties", U.S. Department of the Interior, BLM. Retrieved October 27, 2008 from http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html.



#### **ECONOMIC MODELS**

The economic models for both LMUs (located in Appendix C) are identical in structure, i.e. calculating revenue and cost cash flows in the same manner. The only differences between the models are:

- Mining Rate (LMU5 = 21.2Mtpa, LMU6 = 12Mtpa)
- Capital Equipment Assumptions (which vary based on the mining and stripping requirements).

All other cost assumptions and methodologies in determining costs are the same throughout each model.

# PRODUCTION SCHEDULE

The production schedule was adjusted to reflect a total of 5,500 net operating hours per year for major mobile equipment excluding the draglines which operate 6,000 hours per year. These annual operating hours are based on the following assumptions:

- 12 hour shifts
- 2 shift per day
- 7 days per week
- 50 weeks per year (allows for annual outage of 2 weeks)
- 80% availability
- 92% shift efficiency (15 min start up and shut down, 30 min lunch, effective work 11 of 12 hours per shift)
- 12% operating delays.

#### **CAPITAL COSTS**

Since the results of each separate model are combined into a single value, the capital for infrastructure as well as working capital, permitting, and exploration drilling is split equally between the separate models.

#### **Equipment**

The capital assumptions for each LMU were verified for major mobile equipment from the 2005 study. Capital equipment numbers and sizes for draglines, overburden shovels, and ancillary/support equipment were kept the same. Changes were made to the number of overburden trucks and to the coal loading/hauling fleets. The list below summarizes the assumptions used to verify the capital equipment numbers.

- Draglines were sized based on the annual stripping requirement and a productivity of 275,000 BCY/year/CY of bucket capacity.
- Overburden and coal trucks were sized based on truck match with the loading equipment.



- Overburden shovels were sized based on stripping volumes.
- Coal shovels were replaced with large wheel loaders which
  provide both economic models with a reduced capital cost since
  wheel loaders, being more mobile than shovels, are not
  constrained to a specific mine. This reduced the number of coal
  loading equipment in each LMU by one.
- Coal trucks were changed from 320-ton trucks to 240-ton trucks to match the loading height and bucket size of the wheel loader.
- Overburden and coal truck numbers were changed to reflect updated productivities and truck match with the coal loader.
- For each type of truck, a generic haul route was created using the geologic model and the pit layout and these routes were used to generate the updated productivity numbers using Caterpillar's fleet production calculation (FPC) software program. Appendix A contains the detailed FPC calculations and haul routes.

The calculated overburden truck productivity of 478 BCY/Operating Hour was based on the following haul parameters.

- One-way distance of 10,600 ft.
- 50 ft. elevation gain at an 8% grade
- 0% grade on the remaining length of haul
- Two 90° turns

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4% rolling resistance.

The calculated coal truck productivity of 495 Tons/Operator Hour was based on the following haul parameters.

- One-way distance of 20,000 ft.
- 300 ft. (average overburden plus coal thickness) elevation gain at 8% grade
- 0% grade on the remaining length of haul
- Thee 90° turns
- 4% rolling resistance.

The updated productivities reduced the number of overburden trucks by two in LMU5 and one in LMU6 while coal trucks were reduced by four in LMU5 and three in LMU6.

The capital cost and the hourly operating cost for each piece of mobile equipment was taken from "Mine and Mill Equipment Costs" for 2007<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> "Mine And Mill Equipment Costs - An Estimator's Cost Guide", 2007, InfoMine USA, Inc., Spokane Valley WA.



and then inflated 10% to estimate the 2008 costs, except for draglines which are based on manufacturer quotes. This 10% inflation is an approximation to account for steep increases in diesel fuel, lubricants and replacement parts during the past year. In addition, a 7% increase was added to haul trucks for initial tires due to a worldwide shortage of large truck tires. Finally 5% was added to shovels and draglines for delivery and/or erection costs.

Summary tables of all capital for each model are shown below.

Table 3.1 LMU5 Equipment Capital Summary

Equipment	Number	Cost (\$1,000,000s)
110 cyd -Dragline	3	449.0
30 cyd - Rock-Shovel	2	19.6
240-ton OB Trucks	10	35.4
R.T. Dozers	3	2.8
Dozers (D11)	4	7.5
Water Trucks	3	2.6
Motor Graders	3	5.7
OB-Coal Drills	3	9.4
Coal Wheel Loaders	2	11.8
240-ton Coal Trucks	10	35.4
Reclamation Scrapers	4	7.4
Reclamation Dozers (D11)	2	3.8
Miscellaneous Equipment	NA	0.8
Total	NA	591.2

**Table 3.2 LMU6 Equipment Capital Summary** 

Equipment	Number	Cost (\$1,000,000s)
70 cyd - Dragline	2	240.0
30 cyd - Rock-Shovel	1	9.8
240 ton – OB Trucks	5	17.7
R.T. Dozers	2	1.9
Dozers (D11)	4	7.5
Water Trucks	3	2.6
Motor Graders	3	5.7
OB-Coal Drills	2	6.2
Coal Wheel Loaders	1	5.9
240-ton Coal Trucks	5	17.7
Reclamation Scrapers	2	3.7
Reclamation Dozers (D11)	1	1.9
Miscellaneous Equipment	NA	0.8
Total	NA	321.4

#### **Equipment Replacement**

Replacement of trucks, wheel loaders, and ancillary equipment occurs every 10 years in each model with replacement of all shovels every 20



years. Draglines are assumed to be life of mine assets with major repairs consisting of roller replacements at 10 year intervals and tub plus roller replacements at 20 year intervals. The total equipment replacement capital estimate is \$649.2M.

#### **Facilitiès**

1 6 5 2

Mine facilities including office, maintenance shop, warehouse, equipment wash bay, employee change/shower room, potable water system, etc. are required in the initial stages of the mine. The capital estimate for these facilities is \$29M. This scaled figure is taken from the 2005 Norwest report for an annual tonnage of 33.2Mtons. The 2005 estimates were based on experience from similar sized mining projects studied by Norwest. Since this is a shared facility, \$14.5M was added to each economic model.

#### **Coal Processing Plant**

Mined coal will be hauled by large end-dump trucks to a coal processing plant. Here the coal will be dumped into steel hoppers and fed via an apron feeder to a primary crusher. Crushed coal then flows onto a conveyor belt to a secondary crushing and sampling system where it is further reduced in size to approximately two inches. This coal can be sent directly to large (~15,000 ton capacity) storage and blending silos or sent directly to a weigh bin and loaded into a unit train. The capital cost of this coal handling plant is estimated at \$70M which is based on previous cost studies performed by Norwest scaled to an annual tonnage of 33.2Mtons. This is also a shared facility and was split equally between each economic model at \$35M.

#### Rail Line to Miles City, MT

The closest main rail line to Otter Creek passes through Miles City, MT located about 85 miles from the proposed mine. There is an approved rail line, the Tongue River Railroad, which if built would pass within about six miles of Otter Creek. There is no specific time frame for constructing this railroad. Valuation rules require the evaluator to consider only those improvements that are already in place and not speculate on proposed additions. As such, the cost of the entire rail line to Miles City must be included along with a rail spur and loading loop at the mine location. The impact is significant as the estimate for the rail line only (not including the six mile spur or loading loop) is \$187M. This cost was split equally between each economic model. Norwest assumes that Tongue River Railroad Company (TRRC) will own the main line and therefore be responsible for maintenance and property taxes.

